

REMARKS

In the Office Action mailed on August 06, 2007, claims 1-21 were rejected. By this paper, the Applicants hereby amend claims 1-9, and 11-14 and cancel claims 10, 15 and 16. These amendments do not add any new subject matter. Upon entry of the amendments, claims 1-9, 11-14 and 17-21 remain pending in this application. In view of foregoing amendments and the following remarks, Applicants respectfully request reconsideration and allowance of all pending claims.

Rejections Under 35 U.S.C. § 102 (b)

The Examiner rejected claims 1-4, 6, 8-11 and 14-21 under 35 U.S.C. § 102(b) as being anticipated by Hsu et al., U.S Patent 4,721,556 (hereinafter Hsu).

Applicants respectfully submit that Hsu does not disclose all elements of independent claims 1, 15, 16, 17 and 21.

In the section “Response to Arguments”, the Examiner submits that the metal interconnect of Hsu reads on the stress inducer as claimed in present invention. The Examiner has reiterated the point in the Advisory action.

Applicants had replied in response to previous office actions, that the stress inducer and interconnect are two separate physical elements. Paragraph 25 of the specification as filed reads a stress inducer 42, for example a plurality of exemplary reinforcement structures are applied to at least one of the operating layers, for example, the anode 14”. Interconnect 22, as described in paragraph 21 is a separate structure. This fact is brought out more clearly in Fig. 4, which shows both an interconnect 22 and a stress inducer 42. Thus, it is clear that the stress inducer is a reinforcement structure, different than the interconnect.

This fact is again clearly brought out by amended independent claim 1 that recites, *inter alia* “at least one interconnect; and a stress inducer”

Thus it is clear that the interconnect and the stress inducer are two separate physical elements. Hsu does not describe the separate stress inducing elements and thus

cannot anticipate the embodiments of present invention as described by independent claims 1 and 21.

Claims 2-4, 6, 8-11 and 14 depend directly or indirectly from claim 1 and hence inherit all the limitations recited by claim 1, which has earlier been shown to be patentable over Hsu.

Independent claim 17 describes *inter alia*, "providing a reinforcement structure". As discussed earlier, Hsu is missing in a reinforcement structure. Thus it cannot anticipate embodiments of present invention. Hsu describes induction of thermal stresses into the fuel cell stack whereas the embodiments of present invention describe induction of mechanical stresses.

At least for these reasons among others, Hsu cannot anticipate independent claim 17 and claims 18-20 dependent directly there from.

The Applicants therefore respectfully request for reconsideration and removal of foregoing rejections under 35 U. S. C § 102 (b).

Rejections under 35 U. S. C § 103 (a)

Claims 5, 7, 12 and 13 are rejected under 35 U. S. C § 103 (a) as being unpatentable over Hsu in view of Bothwell et al. US Patent Number 4,276,331 (herein after Bothwell). Applicants respectfully traverses the rejection.

First, Claim 1 is allowable and distinct over Hsu as discussed in the previous sections. Claims 5, 7, 12 and 13 depend directly or indirectly from claim 1 and are similarly allowable.

Second, the examiner has tried to combine the fuel cell of Hsu with Bothwell, citing that it describes a metal grid coated with a ceramic slurry.

Third, one cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988). In this case, the examiner is using the hindsight gained by the present invention to combine the Hsu and Bothwell references.

Fourth, Bothwell describes at column 3, lines 20-25 and column 6, lines 62-65 that the composite can be inserted in a mold and cast around with molten metal, providing a simple method for insulating cast parts. Thus Bothwell involves casting of the slurry around the metal grid and sintering it at high temperatures, see column 10, line 52-56.

In contrast, the embodiments of current invention describe “depositing said brittle layer over said reinforcement structure at a pre-determined deposition temperature”. Deposition quite is a different process as compared to sintering. The major difference is that deposition process allows a layer by layer accumulation of the substance on substrate. This is in accordance with paragraph 27 and 30 of the specification as filed. The difference in deposition techniques also imparts difference in properties of the product prepared as is well known. Thus the techniques described in Bothwell cannot provide functionality as assumed by the Examiner and hence the Applicant request removal of the rejections based on a hypothetical combination of Hsu and Bothwell.

Third, the Applicants submit that Hsu and Bothwell are from different technology domains.

Request Removal of Non-Analogous Art.

Hsu describes “Electrochemical Converters And Combined Cycle Systems”, whereas Bothwell describes “Metal-Ceramic Composite And Method For Making Same”. Further, Hsu describes an SOFC system and a method of making the same. Bothwell, on the other hand, describes the composite that has particular utility as thermal insulation for internal combustion engine exhaust systems.

For the teachings of a reference to be prior art under 35 U.S.C. § 103, there must be some basis for concluding that the reference would have been considered by one skilled in the particular art working on the particular problem with which the invention pertains. In re Horne, 203 U.S.P.Q. 969, 971 (C.C.P.A. 1979). The determination of whether a reference is from a non-analogous art is set forth in a two-step test given in Union Carbide Corp. v. American Can Co., 724 F.2d 1567, 220 U.S.P.Q. 584 (Fed. Cir. 1984). In Union Carbide, the court found that the first determination was whether “the reference is within the field of the inventor’s endeavor.” If it is not, one must proceed to the second

step “to determine whether the reference is reasonably pertinent to the particular problem with which the inventor was involved.” In regard to the second step, *Bott v. Fourstar Corp.*, 218 U.S.P.Q. 358 (E.D. Mich. 1983) determined that “analogous art is that field of art which a person of ordinary skill in the art would have been apt to refer in attempting to solve the problem solved by a proposed invention.” “To be relevant the area of art should be where one of ordinary skill in the art would be aware that similar problems exist.” *Id.*

For at least these reasons among others, the Applicant request removal of above rejections under 35 U. S. C § 103 (a).

The cited references are missing in the elements of system provided by the embodiments of present invention. Hence the Applicants respectfully request allowance of these new claims.

Conclusion

In view of the remarks and amendments set forth above, Applicants respectfully request allowance of the pending claims. If the Examiner believes that a telephonic interview will help speed this application toward issuance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

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